

A NEW SPECIES OF *TEREBRIPORA*
(ECTOPROCTA, CTENOSTOMATA)
FROM ANTARCTIC *CEPHALODISCUS*

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INTRODUCTION

Although d'Orbigny erected the bryozoan genus *Terebripora* and described two species *T. ramosa* and *T. irregularis*, it was not until the work of Marcus (1938) that clear descriptions and figures of the polypide anatomy appeared in the literature. Since 1847 when d'Orbigny's paper was published most of the species of *Terebripora* have been described on the basis of their surface tracings upon mollusk shells, many of these from fossil deposits. In addition to the work of Marcus, anatomical descriptions made from preserved material have been published by Bobin and Prenant (1954, 1956) and Soule (1950, 1963).

Several specimens of Antarctic hemichordates, *Cephalodiscus hodgsoni* and *Cephalodiscus densus*, with burrowing bryozoans in the coenecium were brought to our attention through the kindness of Miss Diana Robbins. Prior to this time the burrowing bryozoans have been found principally in mollusk shells and rarely in brachiopod shells. The hemichordates had been fixed in neutral formalin in the field and later transferred to 70 per cent ethanol. Areas of the coenecium free of sand grains and other debris were dehydrated, infiltrated in paraffin, sectioned at 4 μ , and stained with hematoxylin and eosin. Other regions were dissected from the coenecium, stained with azocarmine, dehydrated, cleared and mounted for anatomical studies. Examination of the whole mounts and the sections show the burrowing bryozoan to be a new species of the genus *Terebripora*.

Genus *Terebripora* d'Orbigny, 1847

Colonies stolonate, composed of zooids joined by segmented primary and secondary stolons. The secondary stolons are affixed to the zoid about midway between the distal and proximal extremities. The alimentary tract of the polypide is provided with a prominent grinding organ or gizzard. The genotype is *Terebripora ramosa* d'Orbigny, 1847.

Terebripora eltaninae new species

Figure 1

Material: Holotype, A.H.F. bryozoan number 148.

Diagnosis: Stolunate burrowing ectoprocts with large elongated cylindrical autozooids that have a blunt, rounded proximal end. Autozooids connected by secondary stolons to the primary stolons at irregular intervals, not crowded. Tentacle number is ten.

Description: Zoaria stolunate, with elongated primary stolons that are divided into internodes of varying length by septae. From the primary stolons, secondary stolons connect to the autozooids at a point about midway between their distal and proximal termini. The proximal ends of the cylindrical autozooids are typically blunt and rounded. The distal end forms an ovoid opening on the free surface of the coenecium. Mature autozooids vary in length from 440 μ to 620 μ in the same zoarium. At the widest point, the autozooids range from 100 to 140 μ . The primary stolons are from 15 to 20 μ in width. The tentacle number is consistently ten, as determined by serial sections stained with hematoxylin and eosin. The sections and the whole mounts show the alimentary tract to be U-shaped in typical ectoproct morphology. The alimentary tract exhibits a prominent, globular grinding organ or gizzard. The muscular system of the autozoid consists of the aperturals at the distal end, lateral parietals, and proximally anchored retractor fibers. Many of the autozooids show a proximally placed ovarian mass consisting of one or more ova surrounded by many small cells. The reproductive cycle was apparently in its initial stages at the time this material was collected (January) since no reproductive kenozooids were found. The zoaria were young as we were unable to find brown bodies within any of the autozooids, and many juvenile zooids in various stages of development were present.

Terebripora eltaninae, with 10 tentacles, is distinguished from *Terebripora ramosa* d'Orbigny, with 12 tentacles, and *Terebripora comma* Soule, with 8 tentacles. The mature autozooids of *Terebripora eltaninae* are consistently larger in size than those of either *T. ramosa* or *T. comma* whose autozooids range between 300 to 350 μ in length.

In recognition of the work of the officers and men of her crew, we have named this species for the oceanographic vessel, the *U.S.N.S. Eltanin*.

Occurrence: Eltanin station number 418, off Palmer Peninsula, 62° 39' S. Latitude, 56° 10' W. Longitude, five-foot Blake trawl, depth 311 to 426 m, January 2, 1963. Eltanin station 435, off Palmer Peninsula, 63° 14' S. Latitude, 58° 40' W. Longitude, 40 foot otter trawl, depth 73 to 92 m, January 8, 1963. Eltanin station 436, off Palmer Peninsula,

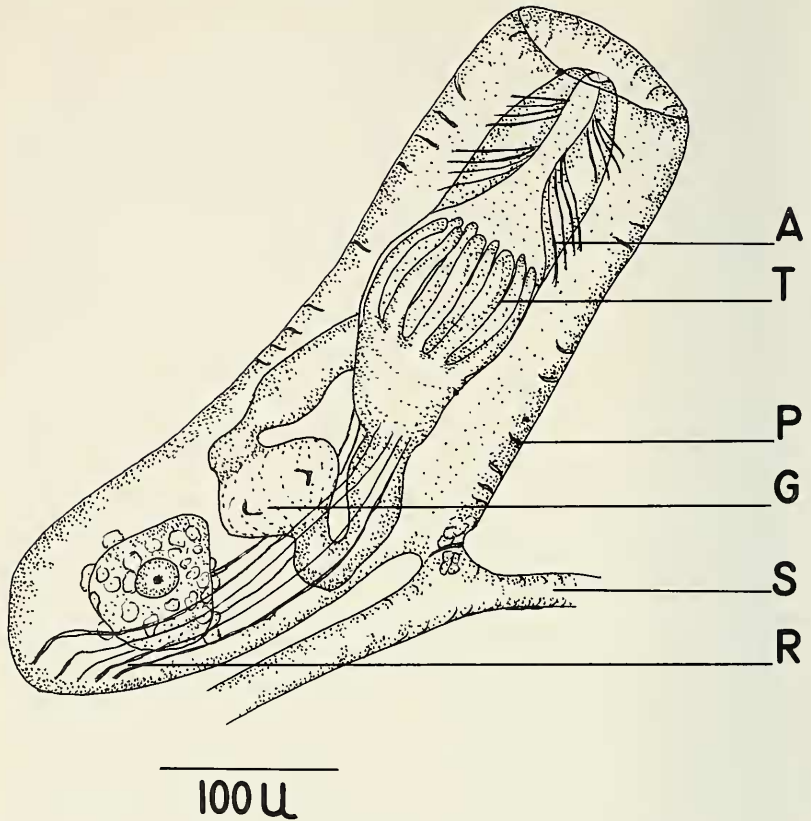


Figure 1. Mature autozoid of *Terebripora eltaninae* from a zoarium taken at Eltanin station 436. Legend: A-apertural muscle fibers; G-gizzard; P-parietal muscle fiber; R-retractor muscle fibers; S-stolon; T-tentacles.

63° 14' S. Latitude, 58° 45' W. Longitude, 40 foot otter trawl, depth 73 m, January 8, 1963.

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Accepted for publication June 7, 1968.